

**STATE FOREST LAND
ENVIRONMENTAL CHECKLIST**

Purpose of Checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for Applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can. *Questions in italics are supplemental to Ecology's standard environmental checklist. They have been added by the DNR to assist in the review of state forest land proposals. Adjacency and landscape/watershed-administrative-unit (WAU) maps for this proposal are available on the DNR internet website at <http://www.dnr.wa.gov> under "SEPA Center." These maps may also be reviewed at the DNR regional office responsible for the proposal. This checklist is to be used for SEPA evaluation of state forest land activities.*

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later. *All of the questions are intended to address the complete proposal as described by your response to question A-11. The proposal acres in question A-11 may cover a larger area than the forest practice application acres, or the actual timber sale acres.*

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NON PROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer" and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

*Timber Sale Name:***MAJESTIC SADIE**

*Agreement #:***30-076296**
2. Name of applicant: **Dept. of Natural Resources**
3. Address and phone number of applicant and contact person:
Mike Potter
411 Tillicum Lane
Forks, Wa. 98331
(360)374-6131
4. Date checklist prepared: **11/16/2004**
5. Agency requesting checklist: **Dept. of Natural Resources**
6. Proposed timing or schedule (including phasing, if applicable):
 - a. *Auction Date* **12/14/04**
 - b. *Planned contract end date (but may be extended):***12/31/06**
 - c. *Phasing:***NA**
7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Timber Sale

- a. *Site preparation:* **None anticipated**
- b. *Regeneration Method:* **Hand Planting**
- c. *Vegetation Management:* **Needs to be assessed 5 –7 years after harvest**
- d. *Thinning:* **Needs to be assessed 12 - 15 years after harvest**

Roads **None anticipated**

Rock Pits and/or Sale: **None anticipated**

Other: **None anticipated**

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

All referenced documents will be available upon for viewing during the SEPA comment period at the Olympic Region Office.

303 (d) – listed water body in WAU: ☐temp ☐sediment ☐completed TMDL (total maximum daily load):

☐Landscape plan:

☐Watershed analysis:

☐Interdisciplinary team (ID Team) report:

☒Road design plan:

☐Wildlife report:

☒Geotechnical report:

☐Other specialist report(s):

☐Memorandum of understanding (sportsmen's groups, neighborhood associations, tribes, etc.):

☒Rock pit plan:

☒Other: **HCP procedural modification pertaining to spotted owl procedures.**

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. **No**

10. List any government approvals or permits that will be needed for your proposal, if known.

☒HPA ☐Burning permit ☐Shoreline permit ☒Incidental take permit ☒FPA ☒Other: **Board of Natural Resources Approval**

11. Give brief, complete description of our proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include specific information on project description.)

a. *Complete proposal description:*

Majestic Sadie is a proposed regeneration harvest located approximately eight miles west of Joyce. It is accessed off the PA-S-2500 and East Twin forest roads. The sale is located in parts of Sections 29 and 31, Township 31N, Range 09W, W. M., and in parts of Sections 6 and 7, Township 30N, Range 09W, W.M. It is located within the Twins Watershed Administrative Unit (WAU) and the Straits Planning Unit of the area covered by DNR's Habitat Conservation Plan (HCP). This four-unit proposal encompasses approximately 156.2 acres. Of this, 115.8 acres is regeneration harvest, 20.8 acres have been left for Type 3 stream protection, 10.3 acres for Type 4 stream protection, 5.0 acres for Type 5 stream protection and there is approximately 4.3 acres of existing road right of way within the sale area. The sale is comprised of mixed species of conifer timber with minor amounts of hardwood present containing an estimated 3,838 MBF for the State Forest Board trust.

This proposal is in an area surrounded by primarily DNR owned forestlands. Surrounding stands vary in age from 5 –6 year old plantations to mature timber.

The area of this proposal sees a high amount of recreation use from different users of state owned forest land. Unit 1 is located along an access point to Murdock Beach. This beach sees year round use from beachcombers and site seers. There is an undeveloped picnic area located along the shoreline near the end of the road. This proposal will have no impact on access to this point.

Units 2, 3 and 4 are located near the Sadie Creek trail system, which sees extensive use from ATV and horse users. Portions of the trail will be closed to use while harvest operations are in progress. The proposal will have no long term effect on the use or condition of this trail system.

b. *Timber stand description pre-harvest (include major timber species and origin date), type of harvest, overall unit objectives.*

This sale proposal is comprised of naturally regenerated second-growth, 60 -70 year-old, mixed conifer and hardwood timber.

The stand structure is very diverse with thick stands of western hemlock in places, while other areas see more sparse stands with cedar, Douglas fir and hardwoods present. The average diameter is 18". Understory species include salal, swordfern, Oregon grape, devil's club and salmonberry. Natural reproduction along timber edges includes western redcedar, western hemlock and red cedar.

Type of Harvest: This regeneration harvest will produce approximately 3,838 MBF for the State Forest Board trust. The units will be harvested with a combination of cable yarding and shovel logging methods. Cable yarding may occur year round, however shovel logging activities will be restricted from November 1 thru April 30 to minimize soil compaction and rutting, and to protect water quality.

Overall Unit Objectives: Objectives for this proposal are to provide financial benefit to the State Forest Board trust under the guidelines provided by Washington States Forest Practice rules and the DNR's Habitat Conservation Plan. Specific objectives include protection of riparian areas, green tree retention, protection of soil quality and following procedures pertaining to threatened and endangered species.

This proposal has both individually marked retention trees and aggregated retention. Eight trees per acre were left aggregated and dispersed throughout the unit to help maintain visual integrity. Retention trees were chosen for their structural diversity, unique form and for future snag recruitment. Retaining these trees will expedite the development of a more diverse, multi-storied canopy in the next generation forest.

Contract language, which includes timing restrictions on road construction and ground-based harvest activities, will help protect soil and water resources. Rubber-tired and tracked skidders will be prohibited from use to protect soils from rutting and compaction.

Portions of this proposal are located within three different Status 1R spotted owl circles. These are the Boundary Creek, Fairholm and East Twin circles. The proposal was evaluated for habitat capability and was determined to be Type C or Young Forest Marginal spotted owl habitat. An HCP Procedural Modification will be written to allow harvest within these circles.

The sale is located within the Straits Planning Unit and Units 2, 3 and 4 were determined to be non-murrelet habitat by the marbled murrelet assessment model. Unit 1 of this proposal is located within reclassified marbled murrelet habitat. The Straits Planning Unit murrelet guidance allows harvest of up to 50% of these reclassified stands per WAU. This is the first harvest of reclassified habitat within the Twins WAU. It will harvest approximately 29 acres of the 224 allowed for harvest.

c. Road activity summary. See also forest practice application (FPA) for maps and more details.

Type of Activity	How Many	Length (feet) (Estimated)	Acres (Estimated)	Fish Barrier Removals (#)
Construction		4,826	1.3	1
Reconstruction		2,954'		0
Abandonment		0	0	0
Bridge Install/Replace	0			0
Culvert Install/Replace (fish)	0			0
Culvert Install/Replace (no fish)	18			

Approximately 4,826' of new construction and 2,954' of reconstruction is planned for this sale. Reconstruction will consist of installing drainage structures, ditching and resurfacing the S-1150 road in Unit 4. Rock will come from DNR's Place Pit located in Sec. 33, Township 31N, Range 07W, W.M., or may be obtained from an approved commercial source.

12. Location of proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. (See timber sale map. See also color landscape/WAU map on the DNR website <http://www.dnr.wa.gov> under "SEPA Center.")

a. Legal description:

T30N R9W S6
T30N R9W S7
T31N R9W S29
T31N R9W S31

b. Distance and direction from nearest town (include road names):

This proposal is located approximately eight miles west of Joyce, WA Access is via Hwy 112, the PA-S-2500 and the East Twin forest roads.

c. Identify the watershed administrative unit (WAU), the WAU Sub-basin(s), and acres. (See also landscape/WAU map on DNR website <http://www.dnr.wa.gov> under "SEPA Center.")

WAU Name	WAU Acres	Proposal Acres
TWINS	55070	116

13. Discuss any known future activities not associated with this proposal that may result in a cumulative change in the environment when combined with the past and current proposal(s). (See digital ortho-photos for WAU and adjacency maps on DNR website <http://www.dnr.wa.gov> under "SEPA Center" for a broader landscape perspective.)

This proposal is located within the Twins WAU. This WAU has mixed forestland ownership with the major landowners being the Department of Natural Resources, United States Forest Service and private forest landowners. The little residential use within the WAU is found along Highway 112 which is the main transportation route which bisects the WAU from east to west. State and private forestland ownerships are generally scattered throughout the WAU with most being in the lower elevations. The Forest Service ownerships are concentrated in the higher elevations. The DNR manages approximately 7,737 acres of forestland within the WAU, which equates to approximately 36% of the total WAU acreage. Approximately 250 acres of these lands have seen regeneration harvest within the past seven years. There are currently no other sold or completed sales within the WAU. Additional stands within the WAU will be selected in the future and scheduled for regeneration, commercial thinning and partial cut harvests as they meet the department's financial and ecological policies and mandates. Over the past 5 – 10 years private industrial forestlands scattered within the WAU have reached rotation age and are currently being harvested on an estimated rotation cycle of 40 – 50 years in accordance with forest practice laws. Federal timberlands have seen very little final harvest activities since the early 1980's and are not anticipated to change for the foreseeable future.

The DNR has an HCP agreement with the federal government concerning threatened and endangered species and their habitats, which requires the department to manage landscapes with the intent to preserve and enhance habitat used by fish and older forest dependent species. This agreement substantially helps the department to mitigate for any potential harmful cumulative effects related to its management activities. The HCP is designed to protect and promote fish and wildlife species and their habitats over a broad regional area. The applicable HCP strategies incorporated into this proposal are as follows:

- Retaining a minimum of eight leave trees per acre scattered and clumped throughout the unit
- Analyze, design, construct, and maintain a road system to minimize potential adverse effects on the environment
- Retaining Riparian Management Zones (RMZ's) on Type 1,2,3,4, and 5 streams
- Complying with the interim marbled murrelet strategy

Several measures have been taken to ensure that this proposal will not contribute to adverse environmental impacts through cumulative effects. In Unit 1 the Type 3 stream (Murdock Creek) along the southeastern boundary is protected with a 165 foot riparian buffer and the Type 5 streams have been protected with 20 – 25' no cut riparian buffers. Sadie Creek, a Type 3 stream, is located approximately 200 feet to the south of Unit 2. There are two small forested wetlands located within Unit 2. Although these are both less than ¼ acre in size and require no protection, they were tagged out and retention trees placed along their length. Unit 4 has a Type 3, two Type 4 and two Type 5 streams associated with it. These streams have been protected with 165 foot, 100 foot and 20 – 25 foot riparian leave areas respectively. These riparian leave areas protect water quality, stream bank integrity, hydrology, sensitive soils, and habitat for riparian species. They also provide large woody debris (LWD) recruitment and habitat for riparian species. Furthermore, the RMZ will develop old-forest characteristics that, in combination with other strategies, will help support old-forest dependant wildlife populations in the future as suitable habitat.

Retaining eight leave trees per acre in the regeneration harvest area provide legacy elements for recruitment of future snags, coarse woody debris, multi-layered stands, and large diameter trees. In combination these features will provide elements of old forest habitat characteristics within the next rotation. By managing to develop climax forest characteristics, habitats will be provided for wildlife species dependent on old forest habitat.

Existing roads will be maintained to divert storm water onto stable forest floor to prevent delivery of sediment to live streams. An existing fish blockage identified during a Road Maintenance and Abandonment visit has been identified on a road system to the north of this proposal. This blockage will be removed by this proposal. To protect soil productivity and reduce erosion, road construction and ground based harvest operations will be restricted to the dry months of the year and suspended during periods of wet weather or wet soil conditions when rutting of skid or shovel roads begins. Following harvest, the site will be replanted with Douglas fir, red cedar, and western hemlock and managed as forestland. These measures will minimize harvest and road impacts on the environment.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site (check one):

☐ Flat, ☒ Rolling, ☒ Hilly, ☐ Steep Slopes, ☐ Mountainous, ☐ Other:

1) General description of the WAU or sub-basin(s) (landforms, climate, elevations, and forest vegetation zone).
The Twins WAU is generally moderate to very steep terrain with an elevation range from 0’ along the shores of the Strait of Juan de Fuca to 3,714’ along the crest of Crescent Ridge with the average being 1,090’. This proposal is located in the lower elevations of the WAU. There are a total of 21,436 acres in the WAU of which 7,737 acres are DNR ownership. The major timber types present are Douglas fir and western hemlock with minor amounts of red cedar and hardwoods.

2) Identify any difference between the proposal location and the general description of the WAU or sub-basin(s).

This timber sale proposal is located within the lower to mid elevations of the WAU on rolling to hilly terrain with the steepest slopes being approximately 50-60% on less than 20% of the sale area.

b. What is the steepest slope on the site (approximate percent slope)?

Approximately 50 – 60% on portions of Unit 4.

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland. *Note: The following table is created from state soil survey data. It is a roll-up of general soils information for the soils found in the entire sale area. It is only one of several site assessment tools used in conjunction with actual site inspections for slope stability concerns or erosion potential. It can help indicate potential for shallow, rapid soil movement, but often does not represent deeper soil sub-strata. The actual soils conditions in the sale area may vary considerably based on land-form shapes, presence of erosive situations, and other factors. The state soil survey is a compilation of various surveys with different standards.*

State Soil Survey #	Soil Texture or Soil Complex Name	% Slope	Acres	Mass Wasting Potential	Erosion Potential
7109	GRAVELLY LOAM	0-35	91	INSIGNIFIC'T	LOW
7234	LOAM	20-55	16	MEDIUM	MEDIUM
5260	V.GRAVELLY LOAMY SAND	30-70	7	MEDIUM	HIGH
0494	SLT.CLY.LOAM	0-3	1	INSIGNIFIC'T	LOW
6002	LOAM	65-90	1	HIGH	HIGH

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

1) Surface indications: There are some indications of instability in the vicinity of Unit 1 and Unit 4. DNR’s geologist, Ana Pierson , visited the sale area and identified these areas of potential instability. These areas have been removed from the sale area.

2) Is there evidence of natural slope failures in the sub-basin(s)?
☐ No ☒ Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:
There is some evidence of natural slope failures in the steeper, higher areas of this WAU. These are generally associated with steep stream channels and headwalls. None of these areas are found within the proposal.

3) Are there slope failures in the sub-basin(s) associated with timber harvest activities or roads?
☐ No ☒ Yes, type of failures (shallow vs. deep-seated) and failure site characteristics:
Associated management activity:
Slope failures associated with harvest activities have occurred on steep ground within the WAU. Most of these have been associated with past harvest, road construction practices and broadcast burning in the steeper higher elevations with the WAU. No known failures associated with harvest activities are present in the immediate vicinity of this proposal.

4) Is the proposed site similar to sites where slope failures have occurred previously in the sub-basin(s)?
☒ No ☐ Yes, describe similarities between the conditions and activities on these sites:

This proposal does not contain any terrain or features that would be considered unstable.

5) Describe any slope stability protection measures (including sale boundary location, road, and harvest system decisions) incorporated into this proposal.

All streams within this proposal have been buffered with riparian leave areas. See question #3 (water) below for a description of the riparian protection. Roads were designed on stable locations. Ground based logging will be limited to shovel only on slopes not exceeding 35% to minimize surface erosion.

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.
Approx. acreage new roads: 2.8 Approx. acreage new landings:.5 Fill source:NA
- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.
A small amount of incidental erosion could occur during the course of timber harvesting and log hauling.
- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? Approximate percent of proposal in permanent road running surface (includes gravel roads):
Approximately 1% of the sale area will be covered with gravel surfaces.
- h. Propose measures to reduce or control erosion, or other impacts to the earth, if any:
(Include protection measures for minimizing compaction or rutting.)
Harvesting and road construction will be restricted during periods of heavy rainfall when rutting and surface erosion may occur. Roads will be constructed with properly located ditches, ditch outs and cross drains to divert water onto stable forest floor and/or into stable natural drainages. Ground based operations on all units will be suspended during periods of wet weather or wet soil conditions when rutting of skid or shovel roads begins. Leave trees are scattered and clumped throughout the sale units. All timber is to be felled and yarded away from riparian management zones. Harvested areas will be reforested within one growing season of the expiration of the contract.

2. Air

- a. What types of emissions to the air would result from the proposal (i.e., dust from truck traffic, rock mining, crushing or hauling, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.
Insignificant amounts of engine exhaust from logging equipment and dust from passage of log trucks. Logging slash, if burned, will be burned adhering to the State's smoke management plan.
- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No
- c. Proposed measures to reduce or control emissions or other impacts to air, if any:

No

3. Water

- a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. (See timber sale map and forest practice base maps.)

Yes, there are numerous streams associated with this proposal.
Unit 1 is adjacent to Murdock Creek, a Type 3 stream. There are four Type 5 tributaries to Murdock Creek within the sale area.
Sadie Creek is located approximately 200 –250’ to the south of Unit 2. There are two small forested wetlands within Unit 2 also. These are both less than .2 acres in size.
Unit 4 has a Type 4 tributary to Sadie Creek along its western boundary and a Type 3/4/5 tributary to the West Fork Sadie Creek along its eastern boundary.
There are no water resources associated with Unit 3.

a) Downstream water bodies: Straits of Juan de Fuca and Sadie Creek

b) Complete the following riparian & wetland management zone table:

Wetland, Stream, Lake, Pond, or Saltwater Name (if any)	Water Type	Number (how many?)	Avg RMZ/WMZ Width in Feet (per side for streams)
Unnamed and Murdock Creek	Type 3	3	165’
Unnamed	Type 4	2	100’
Unnamed	Type 5	6	20 – 25’

c) List RMZ/WMZ protection measures including silvicultural prescriptions, road-related RMZ/WMZ protection measures, and wind buffers.

Type 3 streams have been protected with 165’ riparian management zones, Type 4’s have been protected with 100’ riparian leave areas and Type 5 streams have been protected with 20 – 25’ riparian leave areas. Although the two forested wetlands in Unit 2 are each under ¼ acre in size and require no protection as per HCP procedures, they have been tagged out.
- 2) Will the project require any work over, in, or adjacent to (within 200 feet) to the described waters? If yes, please describe and attach available plans.
☐No ☒Yes (See RMZ/WMZ table above and timber sale map.)
Description (include culverts):
An existing Type 3 road crossing on the on the S-2710 road that has been identified as a fish blockage will be removed with this sale. See 1c above for description of riparian zones.

- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.
None
- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. *(Include diversions for fish-passage culvert installation.)*
☐ No ☒ Yes, description **Water will be pumped around the Type 3 culvert removal described above while work is in progress.**
- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.
☒ No ☐ Yes, describe location:
- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.
☒ No ☐ Yes, type and volume:
- 7) *Does the sub-basin contain soils or terrain susceptible to surface erosion and/or mass wasting? What is the potential for eroded material to enter surface water?*
This WAU does contain terrain susceptible to surface and/or mass erosion. Generally, the high potential areas are located in the higher elevations and are associated with steep unstable terrain. Surface erosion control/prevention measures discussed in B.1.h. would minimize or prevent delivery to surface waters.
- 8) *Is there evidence of changes to the channels in the WAU and sub-basin(s) due to surface erosion or mass wasting (accelerated aggradations, erosion, decrease in large organic debris (LOD), change in channel dimensions)?*
☐ No ☒ Yes, describe changes and possible causes:
There is some evidence of changes to stream channels on some streams within the WAU due to both natural and human caused events.
- 9) *Could this proposal affect water quality based on the answers to the questions 1-8 above?*
☐ No ☒ Yes, explain:
This proposal is consistent with the the HCP's riparian procedures. HCP riparian procedures incorporated into this sale design will minimize sediment delivery to water resources.
- 10) *What are the approximate road miles per square mile in the WAU and sub-basin(s)? 3.3*
Are you aware of areas where forest roads or road ditches intercept sub-surface flow and deliver surface water to streams, rather than back to the forest floor?
☒ No ☐ Yes, describe:
It is likely there are roads within the WAU's that do intercept sub-surface flow and do indeed deliver ditchwater into streams. However, in recent years road construction and maintenance practices have addressed this concern and are making efforts to place ditch water onto stable forest floors.
- 11) *Is the proposal within a significant rain-on-snow (ROS) zone? If not, STOP HERE and go to question B-3-a-13 below. Use the WAU or sub-basin(s) for the ROS percentage questions below.*
☒ No ☐ Yes, approximate percent of WAU in significant ROS zone.
Approximate percent of sub-basin(s):
- 12) *If the proposal is within the significant ROS zone, what is the approximate percentage of the WAU or sub-basin(s) within the significant ROS zone (all ownerships) that is (are) rated as hydrologically mature?*
- 13) *Is there evidence of changes to channels associated with peak flows in the WAU or sub-basin(s)?*
☒ No ☐ Yes, describe observations:
None have been observed.
- 14) *Based on your answers to questions B-3-a-10 through B-3-a-13 above, describe whether and how this proposal, in combination with other past, current, or reasonably foreseeable proposals in the WAU and sub-basin(s), may contribute to a peak flow impact.*
This sale proposal as designed following HCP riparian procedures should have minimal effect on peak flow impacts.
- 15) *Is there water resource (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or downslope of the proposed activity that could be affected by changes in surface water amounts, quality, or movements as a result of this proposal?*
☒ No ☐ Yes, possible impacts:
- 16) *Based on your answers to questions B-3-a-10 through B-3-a-15 above, note any protection measures addressing possible peak flow/flooding impacts.*
This proposal is expected to have no noticeable impact on peak flow or flooding in this WAU. Refer to B1h above for mitigation factors applied.

b. Ground Water:

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.
No
- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.
Does not apply.
- 3) *Is there a water resource use (public, domestic, agricultural, hatchery, etc.), or area of slope instability, downstream or down slope of the proposed activity that could be affected by changes in groundwater amounts, timing, or movements as a result this proposal?*
☒ No ☐ Yes, describe:

- a) Note protection measures, if any.
- c. Water Runoff (including storm water):
- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.
Storm water runoff will be collected by road ditches and diverted through cross drain culverts onto the forest floor.
- 2) Could waste materials enter ground or surface waters? If so, generally describe.
No
a) Note protection measures, if any.
- d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:
(See surface water, ground water, and water runoff sections above, questions B-3-a-1-c, B-3-a-16, B-3-b-3-a, and B-3-c-2-a.)
None

4. Plants

- a. Check or circle types of vegetation found on the site:
- X** deciduous tree: **X** alder, **X** maple,
X evergreen tree: **X** Douglas fir, **X** grand fir, **X** western hemlock, **X** Sitka spruce,
X red cedar,
X shrubs: **X** huckleberry, **X** salmonberry, **X** salal
X grass
- b. What kind and amount of vegetation will be removed or altered? (See answers to questions A-11-a, A-11-b, B-3-a-1-b and B-3-a-1-c. The following sub-questions merely supplement those answers.) **This proposal will be harvesting approximately 3,838 mbf of second- growth conifer timber.**
- 1) Describe the species, age, and structural diversity of the timber types immediately adjacent to the removal area.
(See landscape/WAU and adjacency maps on the DNR website at: <http://www.dnr.wa.gov> under “SEPA Center.”)
- Unit 1 is bounded to the north by DNR timber of similar age, to the west by DNR 35 year old timber, to the south and east by Murdock Creek and its associated riparian management zone.**
- Unit 2 is bounded to the north and west by a 15 year old DNR plantation, to the east by a 5-6 year old DNR plantation and to the south by the East Twin forest road.**
- Unit 3 is a long narrow unit bounded by the PA S 1200 road and 15 year old reprod to the south and by a cleared powerline right- of –way to the north.**
- Unit 4 is bounded by riparian areas and similar DNR timber on all sides except for a portion of the northwest corner which is bounded by a five and a 20 year old DNR plantation.**
- 2) Retention tree plan:
All units of this proposal have retention both aggregated and dispersed throughout the areas. Retention has been incorporated within the Type 5 riparian areas and individually marked retention trees dispersed throughout the units.

- c. List threatened or endangered *plant* species known to be on or near the site.

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
None Found in Database Search				

- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:
Our retention tree plan which is leaving eight wildlife and legacy trees per acre and the riparian buffers left on all streams adjacent to the proposal will enhance diversity on the site. The harvest units will be reforested with a mixture of conifer species including western hemlock, Douglas fir and red cedar all of which are native species to this site.

5. Animal

- a. Circle or check any birds animals *or unique habitats* which have been observed on or near the site or are known to be on or near the site:
- birds: **X** hawk, **X** eagle, **X** songbirds, **X** pigeon, **X** other: **forest grouse, crows**
mammals: **X** deer, **X** bear, **X** elk, **X** other: **coyote, cougar**
fish: **X** salmon, **X** trout,
- b. List any threatened or endangered species known to be on or near the site (include federal- and state-listed species).

TSU Number	FMU_ID	Common Name	Federal Listing Status	WA State Listing Status
1	35699	WINTER STEELHEAD	THREATENED	CANDIDATE
1	35699	MARBELED MURRELET: Reference No: 2013501	THREATENED	THREATENED
1	35699	MARBELED MURRELET: Reference No: 2013500	THREATENED	THREATENED
1	35699	CHUM	THREATENED	CANDIDATE
1	35699	BALD EAGLE	THREATENED	THREATENED

2	45899	WINTER STEELHEAD	THREATENED	CANDIDATE
2	45899	SPOTTED OWL: Site:755-EAST TWIN RIVER	THREATENED	ENDANGERED
2	45899	SPOTTED OWL: Site:646-BOUNDARY CREEK	THREATENED	ENDANGERED
3	45914	SPOTTED OWL: Site:646-BOUNDARY CREEK	THREATENED	ENDANGERED
4	45915	SPOTTED OWL: Site:99-FAIRHOLM	THREATENED	ENDANGERED
4	45915	SPOTTED OWL: Site:755-EAST TWIN RIVER	THREATENED	ENDANGERED
4	45915	SPOTTED OWL: Site:646-BOUNDARY CREEK	THREATENED	ENDANGERED

- c.

Is the site part of a migration route? If so, explain.
☒ *Pacific flyway*
☐ *Other migration route:*
This site is part of the Pacific flyway but is not used extensively for resting or feeding by waterfowl.

Explain if any boxes checked:

d.

Proposed measures to preserve or enhance wildlife, if any:
- Aggregated and dispersed retention trees will provide structure for many wildlife species to use. The density of leave trees will average eight trees per acre for the sale. Snags and down wood will also be provided. The new open cover type created by the harvest will enhance foraging opportunities for some wildlife species.**
6. Energy and Natural Resources
- a.

What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project’s energy needs? Describe whether it will be used for heating, manufacturing, etc.
Does not apply.

b.

Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.
No

c.

What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:
None
7. Environmental Health
- a.

Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

1)

Describe special emergency services that might be required.
Minimal hazard incidental to operating heavy machinery. Harvest operations will increase the risk of fire for a period of time. Contract language and State burning rules will require operations to be performed in a manner that will reduce the risk of fire. Fire suppression tools and equipment will be made readily available on site.

2)

Proposed measures to reduce or control environmental health hazards, if any:
Pump trucks and/or pump trailers will be required on site during fire season.

b.

Noise

1)

What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?
None

2)

What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from this site.
None

3)

Proposed measures to reduce or control noise impacts, if any:
None

8. Land and Shoreline Use

- a.

What is the current use of the site and adjacent properties? (*Site includes the complete proposal, e.g. rock pits and access roads.*) **Timber production and forest management activities.**
- b.

Has the site been used for agriculture? If so, describe.
No
- c.

Describe any structures on the site.
None
- d.

Will any structures be demolished? If so, what?
Does not apply
- e.

What is the current zoning classification of the site?
Forestland
- f.

What is the current comprehensive plan designation of the site?
Does not apply
- g.

If applicable, what is the current shoreline master program designation of the site?
Does not apply
- h.

Has any part of the site been classified as an “environmentally sensitive” area? If so, specify.
No

- i. Approximately how many people would reside or work in the completed project?
Does not apply
- j. Approximately how many people would the completed project displace?
Does not apply
- k. Proposed measures to avoid or reduce displacement impacts, if any:
Does not apply
- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
The design of this project is consistent with current comprehensive plans and procedures pertaining to DNR’s Habitat Conservation Plan.

9. **Housing**

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
Does not apply.
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
Does not apply.
- c. Proposed measures to reduce or control housing impacts, if any:
Does not apply.

10. **Aesthetics**

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principle exterior building material(s) proposed?
Does not apply.
- b. What views in the immediate vicinity would be altered or obstructed?
The majority of the sale area will be void of timber until regeneration is established.
 - 1) *Is this proposal visible from a residential area, town, city, developed recreation site, or a scenic vista?*
X No ☐ Yes, viewing location:
 - 2) *Is this proposal visible from a major transportation or designated scenic corridor (county road, state or interstate highway, US route, river, or Columbia Gorge SMA)?*
☐ No X Yes, scenic corridor name:
Portions of this proposal will be visible from Highway 112.
 - 3) *How will this proposal affect any views described in 1) or 2) above?*
A portion of Unit 2 will be visible along a very short segment of Highway 112. It is located in the back ground of the visible area seen while traveling the highway.
- c. Proposed measures to reduce or control aesthetic impacts, if any:
Retention trees and riparian leave areas will help break up the visible area described above.

11. **Light and Glare**

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
None
- b. Could light or glare from the finished project be a safety hazard or interfere with views?
No
- c. What existing off-site sources of light or glare may affect your proposal?
None
- d. Proposed measures to reduce or control light and glare impacts, if any:
None

12. **Recreation**

- a. What designated and informal recreational opportunities are in the immediate vicinity?
The area of this proposal sees a high amount of recreation use from different users of state owned forest land. Unit 1 is located along an access point to Murdock Beach. This beach sees year round use from beachcombers and site seers. There is an undeveloped picnic area located along the shoreline near the end of the road.
Units 2, 3 and 4 are located near the Sadie Creek trail system, which sees extensive use from ATV’s and horse users.
- b. Would the proposed project displace any existing recreational uses? If so, describe:
This proposal will have no impact on access to the Murdock Beach recreation site.
Portions of the trail system near units 2,3 and 4 will be closed to use while harvest operations are in progress. The proposal will have no long term effect on the use or condition of this trail system.
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:
None

13. **Historic and Cultural Preservation**

- a. Are there any places or objects listed on, or proposed for national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
No
- b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.
None
- c. Proposed measures to reduce or control impacts, if any:
(Include all meetings or consultations with tribes, archaeologists, anthropologists or other authorities.)

None

14. **Transportation**

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any. **Highway 112**

1) *Is it likely that this proposal will contribute to an existing safety, noise, dust, maintenance, or other transportation impact problem(s)?* **No**

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?
No

c. How many parking spaces would the completed project have? How many would the project eliminate?
Does not apply.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).
Yes, approximately 4,826’ of new forest road construction and 2,954’ feet of reconstruction will be associated with this proposal.

1) *How does this proposal impact the overall transportation system/circulation in the surrounding area, if at all?*
This proposal is located in an area that sees heavy use from timber related uses and traffic and will have no additional impacts to the transportation system.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.
No

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.
Approximately 15 – 20 trips per day during peak harvest periods.

g. Proposed measures to reduce or control transportation impacts, if any:
None

15. **Public Services**

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.
None

b. Proposed measures to reduce or control direct impacts on public services, if any.
Does not apply.

16. **Utilities**

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.
None

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.
None

C. **SIGNATURE**

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Completed by : **Mike Potter**

Title : **Tyee Forester 2**

Date: **7 – 22 -04**